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A community can be successful in an effort to prevent and control juvenile delinquency only if the following are operative: a positive community attitude, a knowledge of the delinquency phenomenon, early identification of the predelinquent and delinquent, early referral for study and diagnosis, and treatment through coordination of community resources.

A discussion of the methodology and techniques used by the community worker in the process of early identification of the predelinquent is presented. At least seven instruments or methods are available for the prediction of delinquent behavior; none is held to be infallible. Prediction methodology is generally based on several premises: types of behavior are continuous, a "factor modality" is present in all delinquents, stimulus variables in class and subculture are inoperative, and the subject's situation in life will remain constant. These premises rarely hold true for long; even if they did, several problems in test construction and validation would still be present. Validation design is expensive and difficult. The type of delinquent being identified must be specified: neurotic, socialized, or unsocialized. Local variables must be accounted for. The mechanics of administering the test must overcome the problems inherent in testing the type of person who is a possible delinquent.

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MEASUREMENT AND PREDICTION OF MALADJUSTIVE BEHAVIOR

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Juvenile delinquency is a complex and contentious topic constantly fermenting on the American scene. Faced with the delinquency problem at the local level, a community can hope to achieve some measure of prevention and control only to the extent to which its efforts are characterized by the following:

(1) A positive community attitude. The delinquent must be viewed as a child needing understanding and help rather than punishment and placement outside the community. It is generally true that the delinquent is a hostile child, but one who also faces an equally hostile community. We can't help the delinquent or his family doing business on a two-way street of hate and hostility.

(2) A knowledge of the delinquency phenomenon. The community must plan on the basis of plausible and research-oriented theory of delinquency as a form of adjustment in our culture and subcultures; it must have some knowledge of the geography, psychology, and sociology of the delinquency act on the local scene; and it must come into the more intimate knowledge of the specific delinquent act through case-study approaches. Lacking knowledge at these three levels, the community may booby-trap itself into "impractical-practical" approaches, (curfew, wood-shed, anti-parent legislation) which are irrelevant, if not harmful, to delinquency control and prevention. Common sense opinions cannot be trusted in this field. We must look for, and stick to, the data available from within the behavioral sciences - even in the face of the irrational (unscientific) lay critic, the frightening and shrill cry of the feature writer, or the crusading editorial commentator.

(3) Early identification of pre-delinquent and delinquent. Delinquent

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behavior is not a 24-hour malady; it develops over a long period of time and usually with the generous assistance of two or three adults. The future delinquent presents many hints and rumblings of his coming explosions.

(4) Early referral for study and diagonsis. Once the delinquent or pre-delinquent has been identified there must be available special service personnel (psychologists, social worker, psychiatrists, counselor) to help get at the meaning and predisposing factors of the maladapted behavior. True these professional services cost money, but this is no dime-store problem.

(5) Treatment through coordination of community resources. Using all child and family-serving agencies, the resources of the community must be brought to bear on the individual in a systematic, scientific, and individualized effort of rehabilitation based on case and community study.

This discussion focuses on the third aspect, on methodology and techniques aimed to help the community worker in the process of early identification of the pre-delinquent. Apart from the primary and direct attack on the delinquency problem via the general improvement in patterns of family living, in more effective school programs, in neighborhood value systems, and in leisure time offerings, etc., delinquency prevention programs will depend heavily on the ability to identify at an early date (perhaps as early as the first grade level) the youngster who is prone, vulnerable, exposed, or susceptible to the delinquent pattern of adjustment.

Contrary to the usual depressed predictive validity coefficients reported in the literature on predicting success or failure in classroom achievement or on the job, I am happy to report that it is possible to predict with 100 per cent efficiency the future delinquents in our society.

Considering the complexity and the pressures of modern living within the enveloping web of social taboos, regulations, town bylaws, city ordinances, state and federal laws against the fact that there is still so much of Adam left in all of us, we can safely predict at least one good delinquency (usually more) for every man. (Witness, if in doubt, the mores of any out-of-town conventioning groups such as ours.) Everyone experiences several delinquencies, officially or unofficially, during the growth and maturation process. Even the road to sainthood often seems to have been paved with sins judging from the lives of many of those beatified. But all this only raises the crucial question: "Whom or what are we forecasting?" I shall readdress myself to this question later. First, what are the instruments currently available on the market and how effective are they?

There are at least seven instruments or techniques which are available to the test user and which offer some claim, and sometimes some data to warrant mention - if not use - for early identification of the pre-delinquent. These include the following:

Personal Index of Problem Behavior[1]

Minnesota Multiphasic Personality Inventory[2]

Porteus Maze Test[3]

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[1]Graham C. Loofbourow and Noel Keys, The Personal Index. Minneapolis: Educational Test Bureau, 1933. Winifred C. Riggs and Arnold E. Joyal, "A Validation of the Loofbourow-Keys Personal Index of Problem Behavior in Junior High Schools," Journal of Education Psychology, XIX (March, 1938), 194-201.

[2]Starke R. Hathaway and C. Charnley McKinley, The Minnesota Multiphasic Personality Inventory. New York: Psychological Corporation, 1943. Starke R. Hathaway and Elio D. Monachesi, Analyzing and Predicting Juvenile Delinquency with MMPI. Minneapolis: University of Minnesota Press, 1953.

[3]S. D. Porteus, Qualitative Performance in the Maze Test. New York: Psychological Corporation, 1942.

Washburne Social-Adjustment Inventory[4]

Glueck Prediction Tables[5]

Behavior Cards: A Test-Interview for Delinquent Children[6]

KD Proneness Scale and Check List[7]

None of these items is infallible, nor has any one of these methods demonstrated sufficient forecasting efficiency or power to be used in a routine or perfunctory fashion. The best that can be said for some of them is that they are promising and that they merit perhaps another master's, if not doctorate, thesis by way of further or partial validation.

Rather than review the content of their manuals which are available to any discriminating test user, I shall focus on the factors which tend to raise or to lower the reliability and the validity of such instruments. First, I shall discuss the basic premises or assumptions on which prediction methodology in the delinquency field is generally based, although not always acknowledged. Second, I will review some special construction and validation problems that must be solved if delinquency prediction is to become a useful and practical reality, rather than a hopeful research fantasy.

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[4]J. W. Washburne, Washburne Social-Adjustment Inventory. Yonkers-on-Hudson, New York: World Book Co., 1938. J. W. Washburne "An Experiment on Character Measurement," Journal of Juvenile Delinquency, XIII (Jan. 1929), 1-8.

[5]Sheldon Glueck and Eleanor Glueck, Unraveling Juvenile Delinquency. New York: Commonwealth Fund, 1950.

[6]Ralph M. Stodgill, Behavior Cards: A Test-Interview for Delinquent Children. New York: Psychological Corporation, 1949.

[7]W. C. Kvaraceus, KD Proneness Scale and Check List. Yonkers-on-Hudson, New York: World Book Co., 1953.

BASIC PREMISES

Continuity of behavior. In child study and rehabilitation there is ever present the backward look to earlier life experiences of the subject in an effort to unlock the meaning of behavior or misbehavior. Stated in popular, in not poetic, tongue, past is prologue to the future, the child is conceived as father to the man, and concern is expressed with how the twigs have been bent, if not pruned. Prediction assumes a continuity in behavior or misbehavior, if you will, linked in a cause-effect sequence that is visible or discernable to an observer. However, the sequitur of cause and effect may not be visible to the naked or untutored eye. Most observers today view behavior causally through the distortion of their own bifocals, thus reflecting the bias of their own theoretical frame of reference. The forecaster of delinquency might thus overemphasize or underemphasize data obtained through somatotyping, psycho-genic data, psychoanalytic data, or sociological information that might pertain to the ultimate effect as seen in delinquent behavioral adjustment. It is my conviction that much of the continuity of cause and effect in delinquency is to be found in the cultural and subcultural stream, rather than embedded among factors under the skin, although the careful listener will note the implied false dichotomy. At least any forecaster today cannot afford to overlook the cultural aspects of the delinquency phenomenon.

If some delinquency is spontaneous and accidental, this premise is weakened, or poorly maintained; if some youngsters prepare for their delinquencies quietly and pleasantly, as appears to be the case in a growing number of cases, the observer, whatever his theory, may be hard put to spot the future offender.

Factor modality. The forecaster assumes that there is a factor modality

among enough variables that are commonly and peculiarly associated with delinquent behavior. These factor modalities represent significant differences that pile up between those who become delinquent and those who do not resort to this adjustive mechanism. On the other hand the singular and unique nature of each offender's syndrome tends to deny and to demolish any build up of a useful common modality on which to base a forecast of malbehavior. At the same time, isolation of a number of commonly observed variables in the backgrounds of delinquents as contrasted with nondelinquent counterparts involves an isolation and atomizing of elements that sacrifices dynamic aspects in causal relationship, hence reducing forecasting efficiency.

Unreliability of stimulus variables in class and subculture. Whatever factor, stimulus, or variable is selected for use in a prediction scheme, it is likely to fall victim to differential interpretation according to the respondent's value system reflecting the ways of thinking, behaving, adjusting in the subculture or class with which he is identified. Hence, love may be conceived as tender and be identified with a lullabye in the upper class; love perceived by a lower class adolescent may be viewed as fierce and violent and be identified with a family fight, thus proving the worth and importance of the young member in the family arena. A good example can be found in the use of the affection item in the Glueck social factors' table with a Maltese father, who culturally never displays open affection for his young, although the table expectancy is that he should do so. School achievement may be slurred in the lower class home and praised in the upper class family, duplicity and cunning may be extolled in lower class living and deplored in upper class membership.

If delinquency is an essential and more typical aspect of life among the

lower classes, these differential responses can be exploited in the forecasting game. However, as more delinquents tend to be drawn from the upper levels of community structure in the future, these stimuli and variables which invite differential responses among youth may only succeed in sorting them into the classes and/or subcultures from which they come, or with which they most easily identify. The value of such class identification would thus be lowered for prediction purposes.

Contingency in predicting behavior. Predicting future adjustments or maladjustments will always be made on a contingency basis. If the subject's situation improves, the prediction of delinquency will be weakened; if the situation deteriorates, the forecaster is more likely to be right this time. Hence the prediction made in time must be viewed as relative to subsequent conditions which ensue. Failure to predict accurately may often reflect validation of the methodology albeit it depresses the validity coefficient.

Short-term vs. long-term prediction. Some forecasters, particularly the Gluecks, have assayed long-term prediction working with the six-year-old or from the first grade level. Just as it is hazardous to plan a picnic or a skiing trip on the basis of long term weather forecasting, one must be prepared for disappointments as well as surprises. Obviously predicting at the junior and senior high school levels, closer to the point of delinquency precipitation, should yield a higher level of validity coefficient than in long range forecasting. A pertinent question arising is that of adequate time-allowance in the validation of any prediction scheme to insure adequate measure of delinquency fall-out. Current British studies reported by Mannheim suggest that 18 months may be sufficient to check the prediction power of some measures with older youth

who have been institutionalized. Beyond this we are in the dark about what constitutes minimal time duration in an effective validation design.

Such are the major premises on which prediction techniques are set. Some of these assumptions may withstand close inspection while others cannot be accepted axiomatically. Hence, we do not have a firm bedrock on which any prediction scheme can be automatically and easily constructed.

SPECIAL METHODOLOGICAL PROBLEMS IN CONSTRUCTION AND VALIDATION

Assuming that a workable base can be squared off, the forecaster must still face the following special problems in the test construction and validation process.

Validation design. There is no substitute for the before-and-after research design in validation studies of prediction tools. This means that the prediction technique must be applied to a sample of youngsters and forecasts made. A reasonable period of time for behavior and misbehavior to take place must be allowed during which adjustment criterion data must be gathered according to some acceptable definition of malbehavior. Finally, the relationship between the forecast and the behavioral adjustment must be established and expressed in terms of prediction efficiency.

Many of the techniques now on the market depend too heavily, even exclusively, on construct validity or concurrent validity. Many validation studies merely telescope the before-and-after design by using direct comparisons between available criterion groups and still others attempt to validate forecasting effectiveness via retrospective analysis. Throughout many of these studies there is some confusion between what constitutes probability and what denotes predictive efficiency in a statistical design.

Before-and-after studies are expensive and difficult to manage. Loss of

cases due to mobility alone is a serious stumbling block to the research in such long-term experiments. But there is neither a haven nor excuse in these difficulties for poorly executed research.

The criterion: Whom or what is being predicted? To return to the question raised earlier: "Whom or what are we predicting?" What kind of criterion data are to be collected on each individual in the post-forecasting situation? Who and what is a delinquent? The term, juvenile delinquent, is an omnibus concept that can include the large bulk of our youth population since everyone can, and does, easily fall by the wayside at one time or another in our more complex, "Garden of Eden" society.

We must first observe that there is no dichotomy between delinquents and non-delinquents (except in terms of the court tag, but even here the dichotomy breaks down as one studies the informal and formal dispositions of cases). The implication is that the statistical design in prediction of malbehavior and delinquent behavior is not amenable to the expediency of a beserial r. Misbehavior exists on a continuum. What the researcher lacks is a graduated measure of the delinquency phenomenon on a malbehavior scale. Until such a measure, based on some system of habituation and seriousness of offense, is worked out the unreliability of the criterion measure itself will seriously reduce the validity coefficient assuming that a high degree of relationship exists between forecasting technique and adjustment.

All existing forecasting devices have attempted to predict to the galaxy of any and all kinds of delinquency without due regard for any diagnostic differentiation according to modalities (types) of delinquents. This is perhaps their greatest defect. Separate validation checks and prediction tables need

to be evolved for the following types or modalities: the neurotic delinquent, heavy with anxiety and guilt; the socialized delinquent who has failed, for good reason, to internalize the value system of dominant society and whose super-ego is already delinquency identified; the overt-aggressive unsocialized delinquent whose behavior represents a strong defense, even offense, against authority figures conceived as hostile, threatening, and predatory. To these major modalities might be added others, viz. group intoxicated type, traumatized delinquent, constitutional type, and perhaps others.

Refinement in validation experiment will await refinement in differential diagnosis in the process of gathering criterion data against which to test the forecasting instrument, always working within the rubric of each modality. I would hazard the hypothesis that we can succeed in predicting certain modalities of delinquents with greater effectiveness than others. For example, it may be relatively easy to identify the future socialized and unsocialized delinquents and relatively difficult to predict in the neurotic category of delinquents. At the same time it may prove an impossible task to predict the traumatized offender because of the accidental nature of this phenomenon.

One additional note bears mentioning. The popular practice of resorting to the use of such convenient and undifferentiated criterion groups as court cases or, worse, institutionalized delinquents on whom the community has given up or who have been removed from the community for special reasons, should be erased from validation studies which aim to set up prediction tables. The special and hardy breed of screened delinquents obtained through such sampling do not lend themselves to fair test or experimentation. In a sense the cards are stacked in our favor. Without the use of any elaborate device most youth

workers in any community can foretell what youngsters are most likely to be banished to the training institutions.

Need for local validation. The delinquency problem varies from one community to another and in the large urban centers it will vary from neighborhood to neighborhood. Each community or neighborhood will show significant variations in incidence, type, and time of misbehavior, reflecting unique elements in the population and in the culture and/or subcultures. Any prediction tool that has been demonstrated as useful in a large urban center with a mixed or beterogeneous population may prove to be of little or no value in the more homogeneous and monolithic culture of suburbia. Any promising instrument now available on the market needs to undergo local validation rechecks. This will call for considerable research interest, effort, and skill on the part of test users at the local level.

The need and necessity for local validation of prediction techniques is also pointed up by the problems presented by the class structuring in American society. Sociological studies infer that the average New England community, for example, might need at least three separate editions of a prediction scale or table: one for the lower class, one for the middle class, and one for the upper class. Rather than hoist six editions to suit Warner's family status studies, I have compressed the categories perhaps too conveniently. On review I might prefer four editions. As one studies the items on some of the scales and check lists, the obvious irrelevancy of many of the stimuli for children of varying family status in our society is such as to render them useless and meaningless.

Observation vs. test situation. In developing a methodology of prediction we will need to favor the use of observation techniques such as check lists,

graphic rating scales, anecdotal records as against the use of test items or self-inventory questionnaires which place a heavy burden on the reading ability, trustworthiness, and seriousness of purpose on the part of the respondent. The combination of low reading capacity, irrelevancy of response, and cultural duplicity of many pre-delinquents often tends to lower the reliability of the best of these instruments.

Furthermore the technique that is evolved must be easily administered to large classroom groups. To build prediction tables assuming Rorschach testors, Psychiatric Interviewers, and trained Social Workers will not result in any usuable or practical detection methodology as we contemplate ten million youngsters in the high schools of the nation. What we need, for example, is a handy method which trained teachers can employ as they come in close and continued contact with their students.

Whatever instrument is devised, it must face the practical test of serving as an improvement over what might be accomplished even now through the careful reading of a case-study folder or a cumulative record file. The professional worker, trained in child development and adolescent psychology, can generally smell out a future delinquent through a careful perusal of a child's case record. Prediction methodology must provide a shorthand method that is at least as effective as this longhand approach.

SUMMARY STATEMENT

How much hope can be extended to the community workers who are concerned with prevention and control of malbehavior through early identification of the potential nonconformer? If we can strengthen the base on which prediction methodology must be built through a careful analysis of all our major premises

and if we can carry off our construction and validation processes with the refinements which have been indicated, it is likely that we can predict delinquency as well as tests of academic aptitude predict academic achievement - which, as you all know, is not very well. Even then, or especially then, we shall need to recognize that the prediction tool and the data gathered thereby have in no way relieved us of the urgency and the necessity of careful and deliberate judgment in drawing conclusions, using all other available information, concerning the child's exposure or proneness to malbehavior and delinquency.